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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named  
Inventor : Li Deng et al.

Appln. No. : 10/723,995

Filed : November 26, 2003

For : METHOD AND APPARATUS FOR  
CONTINUOUS VALUED VOCAL  
TRACT RESONANCE TRACKING  
USING PIECEWISE LINEAR  
APPROXIMATIONS

Docket No.: M61.12-0581

Group Art Unit: 2641

Examiner:

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I HEREBY CERTIFY THAT THIS PAPER IS BEING  
SENT BY U.S. MAIL, FIRST CLASS, TO THE  
COMMISSIONER FOR PATENTS, P.O. BOX 1450,  
ALEXANDRIA, VA 22313-1450, THIS

19<sup>th</sup> DAY OF January, 20 05.

*Theresa M. M...*  
PATENT ATTORNEY

Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed, except as waived by the Official Gazette notice of August 5, 2003 regarding copies of U.S. Patents and Published Applications.

**LIST REFERENCES NOT SUBMITTED**

Submitted herewith is a copy (with English translation as appropriate) of an Official Search Report of the EP Patent Office in counterpart foreign application No. 04025456.7.

The following foreign language documents and English language documents are believed to be equivalent or substantially equivalent:

FOREIGN LANGUAGE

ENGLISH LANGUAGE

### TIME OF FILING

The information disclosure statement is being filed:

1.   x   with the application or within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. In accordance with 37 C.F.R. § 1.97(b), no statement or fee is required.
  
2.        after the time period specified in paragraph 1 above, but before the mailing date of a final action under 37 C.F.R. § 1.113 or notice of allowance under 37 C.F.R. § 1.311. Therefore, in accordance with 37 C.F.R. § 1.97(c), submitted herewith is:  

(check either A or B below)

  - A.        a statement as specified in 37 C.F.R. § 1.97(e).
  - B.        the fee set forth in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c).
  
3.        after the mailing date of either a final action under 37 C.F.R. § 1.113 or a notice of allowance under 37 C.F.R. § 1.311, whichever occurs first, but before payment of the issue fee. Therefore, Applicant petitions for consideration and submits herewith:  
  - A. a statement as specified in 37 C.F.R. § 1.97(e);
  - B. the petition fee set forth in 37 C.F.R. § 1.17(p).

### STATEMENT

(only used if No. 2(A) or No. 3 above is checked)

The person(s) signing below certify

(check appropriate paragraph)

       that each item of information contained in this Information Disclosure Statement was first cited in any communication

from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(1).

OR

that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(2).

**METHOD OF PAYMENT**

  x   No fee is required.

       Attached is a check in the amount of \$      .

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

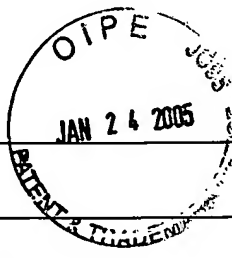
Respectfully submitted,

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|---|----------------------------------|--------------------------|
| FORM PTO-1449   | Atty. Docket No.:<br>M61.12-0581 | Appl. No.:<br>10/723,995 |
| LIST OF PATENTS AND PUBLICATIONS FOR<br>APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT | First Named Inventor:            |                          |
|   | Li Deng et al.                   |                          |
|   | Filing Date                      | Group Art:               |
|   | November 26, 2003                | 2641                     |

## U.S. PATENT DOCUMENTS

| Examiner<br>Initial | Document<br>No. | Date     | Name      | Class | Sub<br>Class | Filing Date<br>If Appropriate |
|---------------------|-----------------|----------|-----------|-------|--------------|-------------------------------|
| AA                  | 6,505,152       | 01/07/03 | Acero, A. |       |              |                               |
| AB                  |                 |          |           |       |              |                               |
| AC                  |                 |          |           |       |              |                               |
| AD                  |                 |          |           |       |              |                               |
| AE                  |                 |          |           |       |              |                               |
| AF                  |                 |          |           |       |              |                               |
| AG                  |                 |          |           |       |              |                               |
| AH                  |                 |          |           |       |              |                               |
| AI                  |                 |          |           |       |              |                               |
| AJ                  |                 |          |           |       |              |                               |
| AK                  |                 |          |           |       |              |                               |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |
|----|---|
| AO | Rigoll, G., "Formant tracking with quasilinearization," 1988 International Conference on Acoustics, Speech, and Signal Processing ICASSP, 11 April 1988, pages 306-310.   |
| AP | Deng, L. et al., "Tracking vocal tract resonances using an analytical nonlinear predictor and a target-guided temporal constraint," Proc. of Eurospeech 2003, September 2003, pages 73-76   |
| AQ | Deng, L. et al., "A structured speech model with continuous hidden dynamics and prediction-residual training for tracking vocal tract resonances," 2004 IEEE International Conference on Acoustics, Speech, and Signal Processing IEEE Piscataway, NJ, May 17, 2004, pages 557-560. |
| AR | L. Lee, H. Attias, and L. Deng, "Variational inference and learning for segmental switching state space models of hidden speech dynamics," Proc. ICASSP, Vol. 1, 2003, pp. 920-923.   |

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.